

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. **(currently amended)** A method [[for]] of distributing stream data based on a multi-path scheme using Transmission Control Protocol (TCP), the method comprising the steps of:
 - a) requesting an input unit to transmit stream data;
 - b) receiving TCP packets loaded with the stream data generated in the input unit based on a TCP scheme;
 - c) assigning the received stream data of the TCP packets to a specific channel to determine the kind of broadcasting service based on the specific channel of the received stream data;
 - d) confirming a neighboring relay that requests stream data transmission of the specific channel by using a routing table;
 - e) transmitting TCP packets loaded with the stream data to one or more neighboring relays that request stream data transmission of the specific channel according to transmission control information of a controller; and
 - f) receiving the stream data of the specific channel from one of neighboring relays.
2. **(currently amended)** The method as recited in claim 1, further comprising the steps of:
 - g) confirming that the stream data generated in the input unit [[are]] is not transmitted; and

h) requesting neighboring relays to transmit the stream data of the specific channel.

3. (**currently amended**) The method as recited in claim 1, further comprising the steps of:

i) receiving the stream data generated in the input unit from a plurality of neighboring relays; and

j) releasing a connection with other neighboring relays except a neighboring relay with the fastest transmission rate among the neighboring relays according to the transmission control information of the controller.

4. (original) The method as recited in claim 1, further comprising the steps of:

k) receiving a request for the stream data transmission of the specific channel from a player; and

l) transmitting the stream data to one or more players that make a request to transmit the stream data of the specific channel based on the TCP scheme according to transmission control information of a controller.

5. (**currently amended**) The method as recited in claim 1, wherein in the step d), an internet address of the neighboring relay that makes a request to transmit the stream data to the specific channel is confirmed using [[a]] the routing table storing information of the one or more neighboring relays that make a request to transmit the stream data of the specific channel.

6. (**currently amended**) The method as recited in claim 1, wherein the input unit compresses moving picture data provided by a contents provider and generates the stream data in form of a frame pack including frames and header information of the compressed moving picture data.

7. (**currently amended**) The method as recited in claim 1, wherein the controller provides the transmission control information, which includes such as changing a path, dividing a channel or merging channels, to the neighboring relay based on the TCP scheme while monitoring the bit rate of the stream data and the network states.

8. (**currently amended**) A computer-readable recording medium containing therein for recording a program that, when executed, implements a method [[for]] of distributing stream data based on a multi-path scheme using Transmission Control Protocol (TCP) in a video-on-demand (VOD) system provided with a processor, the method comprising the steps of:

- a) requesting an input unit to transmit stream data;
- b) receiving TCP packets loaded with the stream data generated in the input unit based on a TCP scheme;
- c) assigning the received stream data of the TCP packets to a specific channel to determine the kind of broadcasting service based on the specific channel of the received stream data;
- d) confirming a neighboring relay that requests stream data transmission of the specific channel by using a routing table;
- e) transmitting TCP packets loaded with the stream data to one or more neighboring relays that request stream data transmission of the specific channel according to transmission control information of a controller; and
- f) receiving the stream data of the specific channel from one of neighboring relays.

9. (**currently amended**) The computer-readable recording medium as recited in claim 8, the method further comprising the steps of:

- g) confirming that the stream data generated in the input unit [[are]] is not transmitted; and
- h) requesting neighboring relays to transmit the stream data of the specific channel.

10. (currently amended) The computer-readable recording medium as recited in claim 8, the method further comprising the steps of:

- i) receiving the stream data generated in the input unit from a plurality of neighboring relays; and
- j) releasing connections with other neighboring relays except a neighboring relay with the fastest transmission rate among the neighboring relays according to the transmission control information of the controller.

11. (currently amended) The computer-readable recording medium as recited in claim 8, the method further comprising the steps of:

- k) receiving a request of the stream data transmission to the specific channel from a player; and
- l) transmitting the stream data to one or more players that make a request to transmit the stream data of the specific channel based on the TCP scheme according to transmission control information of a controller.